



A.D. 1854 N° 900.

SPECIFICATION

OF

JOHN KIRKHAM.

CONSUMING SMOKE IN FURNACES.

LONDON:

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1854.



A.D. 1854 N° 900.

Consuming Smoke in Furnaces.

(This Invention received Provisional Protection, but notice to proceed with the application for Letters Patent was not given within the time prescribed by the Act.)

PROVISIONAL SPECIFICATION left by John Kirkham at the Office of the Commissioners of Patents, with his Petition, on the 19th April 1854.

I, JOHN KIRKHAM, of Tonbridge Place, in the County of Middlesex, Civil
5 Engineer, do hereby declare the nature of the said Invention for “**IMPROVED MEANS OF CONSUMING SMOKE IN FURNACES**” to be as follows:—

The object of my Invention is to consume the smoke given off during the combustion in furnaces of bituminous matters, such as coal, coal tar, pitch, and other analogous substances, either solid or liquid. Some of these matters are
10 so rich in carbon that the smoke evolved therefrom cannot be consumed unless an additional quantity of atmospheric air is supplied thereto during the process of combustion. I have found that the action of air on the smoke is much more energetic when heated than when supplied in a cold state; I therefore propose to furnish a supply of air heated by means of pipes, or in a chamber or
15 chambers contiguous to or forming part of the furnace or flues. Atmospheric air being made to pass in or through these pipes or chambers will be highly heated, and when allowed to come in contact with the unconsumed gases and smoke evolved from the fuel in the furnace, will consume the said gases, thereby economising fuel, increasing the heat, and preventing the exit of smoke from
20 the chimney.

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Printers to the Queen's most Excellent Majesty. 1854.

